

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal653sxs

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Apr 08	"Ask CAS" for self-help around the clock
NEWS	3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	4	Apr 09	ZDB will be removed from STN
NEWS	5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS	6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
NEWS	10	Jun 10	MEDLINE Reload
NEWS	11	Jun 10	PCTFULL has been reloaded
NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS	13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS	14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS	15	Jul 30	NETFIRST to be removed from STN
NEWS	16	Aug 08	CANCERLIT reload
NEWS	17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	18	Aug 08	NTIS has been reloaded and enhanced
NEWS	19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS	21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS	26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS EXPRESS		October 14	CURRENT WINDOWS VERSION IS V6.01, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 18:55:09 ON 19 OCT 2002

=> File bioscience health medicine meetings pharmacology research toxicology
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'ADISALERTS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Adis International Ltd. (ADIS)

FILE 'ADISINSIGHT' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Adis International Ltd. (ADIS)

FILE 'ADISNEWS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Adis International Ltd. (ADIS)

FILE 'AGRICOLA' ENTERED AT 18:55:20 ON 19 OCT 2002

FILE 'ANABSTR' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (c) 2002 THE ROYAL SOCIETY OF CHEMISTRY (RSC)

FILE 'AQUASCI' ENTERED AT 18:55:20 ON 19 OCT 2002
(c) 2002 FAO (on behalf of the ASFA Advisory Board) All rights reserved.

FILE 'BIOBUSINESS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Biological Abstracts, Inc. (BIOSIS)

FILE 'BIOCOMMERCE' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 BioCommerce Data Ltd. Richmond Surrey, United Kingdom. All rights reserved

FILE 'BIOSIS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC. (R)

FILE 'BIOTECHABS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT AND INSTITUTE FOR SCIENTIFIC INFORMATION

FILE 'BIOTECHDS' ACCESS NOT AUTHORIZED

FILE 'BIOTECHNO' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'CABA' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 CAB INTERNATIONAL (CABI)

FILE 'CANCERLIT' ENTERED AT 18:55:20 ON 19 OCT 2002

FILE 'CAPLUS' ENTERED AT 18:55:20 ON 19 OCT 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CEABA-VTB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (c) 2002 DECHEMA eV

FILE 'CEN' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 American Chemical Society (ACS)

FILE 'CIN' ENTERED AT 18:55:20 ON 19 OCT 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 American Chemical Society (ACS)

FILE 'CONFSCI' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'CROPB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'CROPU' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'DDFB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'DDFU' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'DGENE' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'DRUGB' ACCESS NOT AUTHORIZED

FILE 'DRUGLAUNCH' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 IMSWORLD Publications Ltd

FILE 'DRUGMONOG2' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 IMSWORLD Publications Ltd

FILE 'DRUGNL' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 IMSWORLD Publications Ltd

FILE 'DRUGU' ACCESS NOT AUTHORIZED

FILE 'DRUGUPDATES' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 IMSWORLD Publications Ltd

FILE 'EMBAL' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Elsevier Science B.V. All rights reserved.

FILE 'EMBASE' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Elsevier Science B.V. All rights reserved.

FILE 'ESBIOBASE' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'FEDRIP' ENTERED AT 18:55:20 ON 19 OCT 2002

FILE 'FOMAD' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Leatherhead Food Research Association

FILE 'FOREGE' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Leatherhead Food Research Association

FILE 'FROSTI' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Leatherhead Food Research Association

FILE 'FSTA' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 International Food Information Service

FILE 'GENBANK' ENTERED AT 18:55:20 ON 19 OCT 2002

FILE 'HEALSAFE' ENTERED AT 18:55:20 ON 19 OCT 2002

COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'IFIPAT' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 IFI CLAIMS(R) Patent Services (IFI)

FILE 'JICST-EPLUS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Japan Science and Technology Corporation (JST)

FILE 'KOSMET' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 International Federation of the Societies of Cosmetics Chemists

FILE 'LIFESCI' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'MEDICONF' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (c) 2002 FAIRBASE Datenbank GmbH, Hannover, Germany

FILE 'MEDLINE' ENTERED AT 18:55:20 ON 19 OCT 2002

FILE 'NIOSHTIC' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 U.S. Secretary of Commerce on Behalf of the U.S. Government

FILE 'NTIS' ENTERED AT 18:55:20 ON 19 OCT 2002
Compiled and distributed by the NTIS, U.S. Department of Commerce.
It contains copyrighted material.
All rights reserved. (2002)

FILE 'OCEAN' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'PASCAL' ENTERED AT 18:55:20 ON 19 OCT 2002
Any reproduction or dissemination in part or in full,
by means of any process and on any support whatsoever
is prohibited without the prior written agreement of INIST-CNRS.
COPYRIGHT (C) 2002 INIST-CNRS. All rights reserved.

FILE 'PHAR' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 PJB Publications Ltd. (PJB)

FILE 'PHARMAML' ENTERED AT 18:55:20 ON 19 OCT 2002
Copyright 2002 (c) MARKETLETTER Publications Ltd. All rights reserved.

FILE 'PHIC' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 PJB Publications Ltd. (PJB)

FILE 'PHIN' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 PJB Publications Ltd. (PJB)

FILE 'PROMT' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Gale Group. All rights reserved.

FILE 'SCISEARCH' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Institute for Scientific Information (ISI) (R)

FILE 'SYNTHLINE' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Prous Science

FILE 'TOXCENTER' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 ACS

FILE 'USPATFULL' ENTERED AT 18:55:20 ON 19 OCT 2002

CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 18:55:20 ON 19 OCT 2002
CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'VETB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'VETU' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'WPIDS' ACCESS NOT AUTHORIZED

FILE 'WPINDEX' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'CBNB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (c) 2002 ELSEVIER ENGINEERING INFORMATION, INC.

FILE 'CHEMLIST' ENTERED AT 18:55:20 ON 19 OCT 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 American Chemical Society (ACS)

FILE 'CSNB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (c) 2002 THE ROYAL SOCIETY OF CHEMISTRY (RSC)

FILE 'ENERGY' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (c) 2002 USDOE for the IEA-Energy Technology Data Exchange (ETDE)

FILE 'HSDB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 NATIONAL LIBRARY OF MEDICINE

FILE 'INIS' ACCESS NOT AUTHORIZED

FILE 'IPA' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 American Society of Hospital Pharmacists (ASHP)

FILE 'MSDS-CCOHS' ENTERED AT 18:55:20 ON 19 OCT 2002
Copyright Notice: Permission to copy is not required for this file

FILE 'MSDS-OHS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 MDL INFORMATION SYSTEMS (MDL)

FILE 'NAPRALERT' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Board of Trustees of the University of Illinois,
University of Illinois at Chicago.

FILE 'NLDB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Gale Group. All rights reserved.

FILE 'POLLUAB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'RTECS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 U.S. Secretary of Commerce on Behalf of the U.S. Government (DOC)

FILE 'IMOBILITY' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Society of Automotive Engineers, Inc.

FILE 'COMPENDEX' ENTERED AT 18:55:20 ON 19 OCT 2002
Compendex Compilation and Indexing (C) 2002
Elsevier Engineering Information Inc (EEI). All rights reserved.

Compendex (R) is a registered Trademark of Elsevier Engineering Information Inc.

FILE 'COMPUAB' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'CONF' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (c) 2002 FIZ Karlsruhe

FILE 'ELCOM' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

COMMAND INTERRUPTED

FILE 'IMSDRUGCONF' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 IMSWORLD Publications Ltd.

FILE 'ISMEC' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'PAPERCHEM2' ENTERED AT 18:55:20 ON 19 OCT 2002
Paperchem2 compilation and indexing (C) 2002
Elsevier Engineering Information Inc. All rights reserved.

FILE 'SOLIDSTATE' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'BABS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (c) 2002 Beilstein-Institut zur Foerderung der Chemischen Wissenschaften
licensed to Beilstein Chemiedaten & Software GmbH and MDL Information Systems GmbH

FILE 'DIOGENES' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 FOI Services, Inc. (FOI)

FILE 'INVESTEXT' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Thomson Financial Services, Inc. (TFS)

FILE 'USAN' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 U.S. Pharmacopeial Convention, Inc. (USPC)

FILE 'DKF' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Dokumentation Kraftfahrwesen e.V., Germany

FILE 'FORIS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Informationszentrum Sozialwissenschaften, Bonn (IZS)

FILE 'FORKAT' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Bundesministerium fuer Bildung,
Wissenschaft, Forschung und Technologie (bmb+f)

FILE 'RUSSCI' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Andrigal Ltd.

FILE 'SOLIS' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Informationszentrum Sozialwissenschaften, Bonn (IZS)

FILE 'UFORDAT' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 Umweltbundesamt, D-14191 Berlin (UBA)

FILE 'AQUIRE' ENTERED AT 18:55:20 ON 19 OCT 2002
COPYRIGHT (C) 2002 US Environmental Protection Agency (EPA)

FILE 'ULIDAT' ENTERED AT 18:55:20 ON 19 OCT 2002

COPYRIGHT (C) 2002 Umweltbundesamt, D-14191 Berlin (UBA)
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

=> s calcineurin (3A) (superoxide (w) dismutase)

30 FILES SEARCHED...

59 FILES SEARCHED...

L1 31 CALCINEURIN (3A) (SUPEROXIDE (W) DISMUTASE)

=> duplicate

ENTER REMOVE, IDENTIFY, ONLY, OR (?):remove

ENTER L# LIST OR (END):l1

DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE,
DRUGLAUNCH, DRUGMONOG2, DRUGUPDATES, FEDRIP, FOREGE, GENBANK, KOSMET,
MEDICONF, PHAR, PHARMAML, SYNTHLINE, CHEMLIST, HSDB, MSDS-CCOHS, MSDS-OHS,
RTECS, CONF, IMSDRUGCONF, DIOGENES, INVESTEXT, USAN, FORIS, FORKAT, UFORDAT,
AQUIRE'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

DUPLICATE PREFERENCE IS 'BIOCOMMERCE, BIOSIS, CAPLUS, EMBASE, ESBIODBASE, LIFESCI,
MEDLINE, PASCAL, PROMT, SCISEARCH, TOXCENTER, NLDB'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L1

L2 12 DUPLICATE REMOVE L1 (19 DUPLICATES REMOVED)

=> d l2 1-12 bib ab

L2 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2002 ACS

AN 2002:198848 CAPLUS

DN 136:321171

TI Redox control of calcineurin by targeting the binuclear Fe²⁺-Zn²⁺ center
at the enzyme active site

AU Namgaladze, Dmitry; Hofer, H. Werner; Ullrich, Volker

CS Mathematisch-Naturwissenschaftliche Sektion, Fachbereich Biologie,
Universitat Konstanz, Konstanz, D-78457, Germany

SO Journal of Biological Chemistry (2002), 277(8), 5962-5969
CODEN: JBCHA3; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology

DT Journal

LA English

AB The interaction of protein serine/threonine phosphatase calcineurin (CaN)
with superoxide and hydrogen peroxide was investigated. Superoxide
specifically inhibited phosphatase activity of CaN toward RII
(DLDVPIPGRFDRRVSAAE) phosphopeptide in tissue and cell homogenates as
well as the activity of the enzyme purified under reducing conditions.
Hydrogen peroxide was an effective inhibitor of CaN at concns. several
orders of magnitude higher than superoxide. Inhibition by superoxide was
calcium/calmodulin-dependent. Nitric oxide (NO) antagonized superoxide
action on CaN. We provide kinetic and spectroscopic evidence that native,
catalytically active CaN has a Fe²⁺-Zn²⁺ binuclear center in its active
site that is oxidized to Fe³⁺-Zn²⁺ by superoxide and hydrogen peroxide.
This oxidn. is accompanied by a gain of manganese dependence of enzyme
activity. CaN isolated by a conventional purifn. procedure was found in
the oxidized, ferric enzyme form, and it became increasingly dependent on
divalent cations. These results point to a complex redox regulation of
CaN phosphatase activity by superoxide, which is modified by calcium, NO,
and superoxide dismutase.

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1

AN 2001:574338 BIOSIS

DN PREV200100574338

TI Nitric oxide synthase, **calcineurin**, and **superoxide dismutase** in cord and periphery-projection central neurons following axonal injury.

AU Tseng, G. F. (1); Tsai, S. Y. (1)

CS (1) Dept Anatomy and Cell Biology, Col Med, National Taiwan Univ, Taipei Taiwan

SO Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2, pp. 2036. print.
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001
ISSN: 0190-5295.

DT Conference

LA English

SL English

AB We compared the responses of rat rubrospinal (RS) and facial motoneurons following axotomy. In the red nucleus (RN), dark nitric oxide synthase (NOS) immunoreactive cells started to increase 3 days, peaked 1-2 weeks, and decreased to baseline later following spinal tractotomy. Only lumbar-projection RS neurons were NOS(+) following upper cervical, but not lower thoracic tractotomy. Thus the proximity of axonal lesion to their cell bodies is critical to the elevation of NOS. At the same time, Mn and Cu/Zn-SOD remained unchanged in these neurons indicating the lack of protection of injured neurons since SOD can compete with NO for superoxide, thus reducing its neurotoxicity. Meanwhile calcineurin was moderately increased, which could upregulate NOS activity of axotomized RS neurons. In contrast, neurectomy resulted in an increase of Mn-SOD and a decrease of calcineurin in facial neurons, which also expressed high level of NOS. Thus, both cord and periphery-projection central neurons upregulated NOS expression following axonal injury, however, only the latter were protected from calcium-dependent NO production by downregulation of calcineurin and also from the formation of peroxynitrite by upregulation of Mn-SOD. These are likely to better protect periphery-projection central neurons from injury-induced reactive oxygen and/or nitrogen species toxicity. These differences and the fact that axotomized intrinsic central, but not periphery-projection neurons retain glutamatergic afferent synapses may be related to the inability of the latter to regenerate their axons and perhaps also to their degenerative fate following axonal injury.

L2 ANSWER 3 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2001:503815 BIOSIS

DN PREV200100503815

TI Direct interaction between Cu,Zn-SOD and calcineurin.

AU Reuter, A. T. (1); Voelkel, H. (1)

CS (1) Dept Neurol, University of Ulm, Ulm Germany

SO Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. 873. print.
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001
ISSN: 0190-5295.

DT Conference

LA English

SL English

AB Calcineurin is a calcium/calmodulin regulated phosphatase which has been implicated as a key player not only in the modulation of neurotransmission, but also in amyotrophic lateral sclerosis, ischemia/reperfusion injury and heart failure. Recently, it was shown that Cu,Zn **superoxide dismutase** protects **calcineurin** from oxidative inactivation and is copurified with calcineurin if using gel filtration. However, the mechanism of this protection and the nature of the association between SOD and calcineurin are still unknown. In this study, we show by means of protein chip technology, pull-down assays and immunoprecipitation that **calcineurin** can bind to **superoxide dismutase** directly.

L2 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 2

AN 2001:179103 CAPLUS

DN 135:135873

TI A putative role for calcineurin in lymphopenia associated with chronic renal failure

AU Sasikala, M.; Sadasivudu, B.; Subramanyam, C.

CS Vijaya Diagnostic Centre, Osmania University, Hyderabad, 500 007, India

SO Clinical Biochemistry (2001), Volume Date 2000, 33(8), 691-694

CODEN: CLBIAS; ISSN: 0009-9120

PB Elsevier Science Inc.

DT Journal

LA English

AB One of the important features of chronic renal failure (CRF) is related to the assocd. hematol. disorders such as anemia, thrombocytopenia and lymphopenia. Because recent studies have identified calcineurin in serum, it was of interest to assay its activity in sera and lymphocytes in CRF to evaluate the relevance of calcineurin and reactive oxygen species (ROS) in the etiol. of lymphopenia that accompanies CRF. Malondialdehyde (MDA) levels were evaluated and the activities of **superoxide dismutase** (SOD) and **calcineurin** in sera and lymphocytes were assayed during progression of CRF. Data suggest that decreased calcineurin activity, concomitant with increases in ROS activity, in lymphocytes may account for the lymphopenia occurring during progression of CRF.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3

AN 2001:555084 BIOSIS

DN PREV200100555084

TI Oxidative inactivation of **calcineurin** by Cu,Zn **superoxide dismutase** G93A, a mutant typical of familial amyotrophic lateral sclerosis.

AU Ferri, Alberto; Gabbianelli, Roberta; Casciati, Arianna; Celsi, Fulvio; Rotilio, Giuseppe; Carri, Maria Teresa (1)

CS (1) Dipartimento di Biologia, Universita di Roma 'Tor Vergata', Via della Ricerca Scientifica, 00133, Rome: carri@Bio.uniroma2.it Italy

SO Journal of Neurochemistry, (November, 2001) Vol. 79, No. 3, pp. 531-538. print.

ISSN: 0022-3042.

DT Article

LA English

SL English

AB Calcineurin is a serine/threonine phosphatase involved in a wide range of cellular responses to calcium mobilizing signals. Previous evidence supports the notion of the existence of a redox regulation of this enzyme, which might be relevant for neurodegenerative processes, where an imbalance between generation and removal of reactive oxygen species could occur. In a recent work, we have observed that calcineurin activity is depressed in two models for familial amyotrophic lateral sclerosis (FALS) associated with mutations of the antioxidant enzyme Cu,Zn superoxide dismutase (SOD1), namely in neuroblastoma cells expressing either SOD1 mutant G93A or mutant H46R and in brain areas from G93A transgenic mice. In this work we report that while wild-type SOD1 has a protective effect, calcineurin is oxidatively inactivated by mutant SOD1s in vitro; this inactivation is mediated by reactive oxygen species and can be reverted by addition of reducing agents. Furthermore, we show that calcineurin is sensitive to oxidation only when it is in an 'open', calcium-activated conformation, and that G93A-SOD1 must have its redox-active copper site available to substrates in order to exert its pro-oxidant properties on calcineurin. These findings demonstrate that both wild-type and mutant SOD1s can interfere directly with calcineurin activity and further support

the possibility of a relevant role for calcineurin-regulated biochemical pathways in the pathogenesis of FALS.

L2 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2002 ACS
AN 2001:611160 CAPLUS
DN 135:330058
TI Superoxide dismutase mutations of familial amyotrophic lateral sclerosis and the oxidative inactivation of calcineurin
AU Volkel, H.; Scholz, M.; Link, J.; Selzle, M.; Werner, P.; Tunnemann, R.; Jung, G.; Ludolph, A. C.; Reuter, A.
CS Departments of Neurology, O 25, University of Ulm, Ulm, 89081, Germany
SO FEBS Letters (2001), 503(2,3), 201-205
CODEN: FEBLAL; ISSN: 0014-5793
PB Elsevier Science B.V.
DT Journal
LA English
AB Approx. 10% of all familial cases of amyotrophic lateral sclerosis (fALS) are linked to mutations in the SOD1 gene, which encodes the copper/zinc superoxide dismutase (CuZnSOD). Recently, wild-type CuZnSOD was shown to protect calcineurin, a calcium/calmodulin-regulated phosphoprotein phosphatase, from inactivation by reactive oxygen species. We asked whether the protective effect of CuZnSOD on calcineurin is affected by mutations assocd. with fALS. For this, we monitored calcineurin activity in the presence of mutant and wild-type SOD. We found that the degree of protection against inactivation of calcineurin by different SOD mutants correlates with the severity of the phenotype assocd. with the different mutations, suggesting a potential role for calcineurin-SOD1 interaction in the etiol. of FALS.

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 7 OF 12 PROMT COPYRIGHT 2002 Gale Group
AN 2000:269885 PROMT
TI EUROPEAN PATENT DISCLOSURES PRIVATE. (Brief Article)
SO BIOWORLD Today, (11 Apr 2000) Vol. 11, No. 69.
PB American Health Consultants, Inc.
DT Newsletter
LA English
WC 2130
FULL TEXT IS AVAILABLE IN THE ALL FORMAT
AB Published February 9 (EPO); February 3 (WO); February 9 (GB)
THIS IS THE FULL TEXT: COPYRIGHT 2000 American Health Consultants, Inc.

Subscription: \$1350.00 per year. Published daily (5 times a week).

L2 ANSWER 8 OF 12 COPYRIGHT 2002 Gale Group
AN 2000:104723 NLDB
TI EUROPEAN PATENT DISCLOSURES PRIVATE.
SO BIOWORLD Today, (11 Apr 2000) Vol. 11, No. 69.
PB American Health Consultants, Inc.
DT Newsletter
LA English
WC 2130

L2 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2002 ACS
AN 2000:84442 CAPLUS
DN 132:132319
TI A high throughput bioassay for screening for effectors of the interaction between **calcineurins** and **Cu/Zn-superoxide dismutases** for the identification of pharmaceuticals
IN Volkel, Helge
PA Germany

SO Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

Foreign Application - check for priority data

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 976823	A1	20000202	EP 1998-113876	19980722
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	WO 2000005363	A1	20000203	WO 1999-EP5220	19990722
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9954124	A1	20000214	AU 1999-54124	19990722
	EP 1100912	A1	20010523	EP 1999-940032	19990722
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002522015	T2	20020723	JP 2000-561309	19990722
PRAI	EP 1998-113876	A	19980722		
	WO 1999-EP5220	W	19990722		

AB Methods of screening for substances that affect the interaction between **calcineurins** and **Cu/Zn-superoxide dismutases** or the regulation of expression of their resp. genes are described. Such compds. may be useful in the treatment of neurol., immunol., or heart and circulatory diseases. Methods that use laser correlation spectroscopy to measure fluorescence-labeled proteins are described. The proteins can be labeled with fluorescent reporter groups or by fusing them with a green fluorescent protein or a novel fluorescent peptide substrate (RII-Fluophos).

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 4
AN 2000:514656 CAPLUS
DN 133:221124
TI Calcineurin activity is regulated both by redox compounds and by mutant familial amyotrophic lateral sclerosis-superoxide dismutase
AU Ferri, Alberto; Gabbianelli, Roberta; Casciati, Arianna; Paolucci, Egle; Rotilio, Giuseppe; Carri, Maria Teresa
CS Fondazione S. Lucia IRCCS, Universita di Roma "Tor Vergata", Rome, 00133, Italy
SO Journal of Neurochemistry (2000), 75(2), 606-613
CODEN: JONRA9; ISSN: 0022-3042
PB Lippincott Williams & Wilkins
DT Journal
LA English
AB Calcineurin (CN) is a protein phosphatase involved in a wide range of cellular responses to calcium-mobilizing signals, and a role for this enzyme in neuropathol. has been postulated. We have investigated the possibility that redox modulation of CN activity is relevant to neuropathol. conditions where an imbalance in reactive oxygen species has been described. We have monitored CN activity in cultured human neuroblastoma SH-SY5Y cells and obtained evidence that CN activity is promoted by treatment with ascorbate or dithiothreitol and impaired by oxidative stress. Evidence for the existence of a redox regulation of this enzyme has been also obtained by overexpression of wild-type antioxidant Cu,Zn superoxide dismutase (SOD1) that promotes CN activity

and protects it from oxidative inactivation. On the contrary, overexpression of mutant SOD1s assocd. with familial amyotrophic lateral sclerosis (FALS) impairs CN activity both in transfected human neuroblastoma cell lines and in the motor cortex of brain from FALS-transgenic mice. These data suggest that CN might be a target in the pathogenesis of SOD1-linked FALS.

RE.CNT 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 11 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
5

AN 1996:507216 BIOSIS

DN PREV199699229572

TI **Superoxide dismutase** protects **calcineurin**
from inactivation.

AU Wang, Xutong; Culotta, Valeria C.; Klee, Claude B. (1)

CS (1) Lab. Biochem., Natl. Cancer Inst., NIH, Bethesda, MD 20892-4255 USA

SO Nature (London), (1996) Vol. 383, No. 6599, pp. 434-437.

ISSN: 0028-0836.

DT Article

LA English

AB Calcineurin is the only protein phosphatase known to be under the control of Ca-2+ and calmodulin. It is targeted by immunosuppressive drugs and has a critical role in T-cell activation. It is specifically inhibited by immunosuppressant immunophilin complexes, which enabled its function in regulating a wide range of cellular responses to Ca-2+-mobilizing signals to be identified. Calcineurin in situ is 10-20 times more active than in the purified form and is subject to a time- and Ca-2+/calmodulin-dependent reversible inactivation that is facilitated by small, heat-stable molecules. Here we identify a factor that prevents the inactivation of calcineurin in vitro and in vivo as the enzyme superoxide dismutase, which indicates that inactivation may be the result of oxidative damage to the Fe-Zn active centre of calcineurin. The redox state of iron provides a mechanism to regulate calcineurin activity by desensitizing the enzyme and coupling Ca-2+-dependent protein dephosphorylation to the redox state of the cell. The protection of **calcineurin** against inactivation by **superoxide dismutase** constitutes a new physiological role for this enzyme which enables the Ca-2+-dependent regulation of cellular processes to be modulated by the redox potential.

L2 ANSWER 12 OF 12 BIOCOMMERCE COPYRIGHT 2002 BioCommerce Data Ltd.

AN 0147430 BIOCOMMERCE FS Abstract

CO National Cancer Institute, USA (NCI) (1783), USA

Johns Hopkins University (1582), USA

SO Nature, 03 OCT 1996, vol. 3836599, Page(s) 434-437.

TC (General information not published in print edition)

AB NCI and Johns Hopkins University collaborators have found that

superoxide dismutase (SOD) protects **calcineurin**
from inactivation.

L Number	Hits	Search Text	DB	Time stamp
1	1	calcineurin near3 (superoxide adj dismutase)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/10/19 18:50